

ILLINOIS OCCUPATIONAL AND ENVIRONMENTAL HEALTH AND SAFETY EDUCATION AND RESEARCH CENTER

**SUMMARY ANNUAL REPORT
July 1, 2010 – June 30, 2011
NIOSH Training Grant
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**SUBMITTED BY:
Lorraine M. Conroy, ScD, CIH
CENTER DIRECTOR
University of Illinois at Chicago
School of Public Health
2121 W. Taylor Street
Chicago, Illinois 60612**

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The University of Illinois at Chicago Occupational and Environmental Health and Safety Education and Research Center (Illinois ERC), a National Institute for Occupational Safety and Health (NIOSH)-funded training grant since 1977, completed year three of a five year project period (2008-2013). The ERC provides MS and PhD training in industrial hygiene (IH), occupational health nursing (OHN) {the OHN program is not NIOSH funded}, occupational safety (OS), and occupational and environmental epidemiology (OEE) as well as occupational medicine residency training (OM), including a MPH graduate degree, and specialized training in hazardous substances (HSAT), and in agricultural safety and health to students in a variety of degree programs (ASH). Continuing Education components include occupational medicine, occupational health nursing, industrial hygiene, occupational safety, and occupational epidemiology, as well as targeted programs in agricultural safety and health and hazardous substances. The Illinois ERC supports two research training programs, a pilot project research training program (PPRT) which provides small grants to new occupational safety and health investigators and a targeted research training program (TRT) that provides support to interdisciplinary research training teams.

2010-2011 Highlights

- During the 2010-2011 reporting year there were 36 masters level trainees (18 with NIOSH support), 17 doctoral level trainees (12 with NIOSH support), 6 undergraduate trainees (all with partial NIOSH support), and 7 OM residents (all with NIOSH support). Trainees included 23 in IH, 10 in OHN, 7 in OM, 7 in OS, 5 in OEE, 4 in HSAT and 10 in ASH (6 BS and 4 PhD/DVM). Four students declared the new minor in agricultural safety and health and four students completed the requirements for the minor. Eighteen trainees graduated, including 5 PhD, 4 MS, 4 OM residents, 1 MPH, and 4 BS. Approximately 130 other trainees took occupational health and safety courses
- ABET-accreditation for the Industrial Hygiene Program was approved through 2013.
- In our "Process Talk & Tour" series, an OS, IH, or HSAT trainee gives an industrial process talk at one of the weekly Occupational Medicine Conferences, followed by a site tour to a related industrial facility. Recent process talk/tours include Underwriters Laboratories, Horween Leather, Argonne National Laboratory, and Excelon Nuclear Power. Participation in the Process Talk & Tour is now a requirement for all OM, IH, OS, IH, HSAT, and OEE trainees.
- In March 2011, OS trainee Ramon Lopez and HSAT trainee Jason Lotter traveled with IH Program Director Dr. Lacey to Cerro Alto, Guatemala, to help address safe drinking water with the UIC Engineers Without Borders Student Chapter.
- The Illinois ERC offered 124 continuing education courses for 4464 participants in the traditional occupational safety and health disciplines as well as reaching others active in health and safety in our region.
- The CE program partnered with 23 organizations including Access Living, Metropolitan Chicago Healthcare Council, and OSHA Region V to present "Safe Lifting and Moving in Health Care: Tools, Policies, and Programs for Injury Prevention" for 160 participants, presenting research, program implementation, and policy related to a new Illinois law requiring health care organizations to create a safe lifting and moving policy to benefit consumers and workers.
- The More than Training project, with support from the CE program, provided 16 OSHA 10 Hour Construction Training sessions in Spanish for 286 participants with workers' center partners in Chicago, Milwaukee, Cincinnati, Memphis, Houston, Austin, and Phoenix.
- Pandemic influenza prevention was the focus of a training intervention project with the Academy for Educational Development and the CE program. Between August and November, 2010 the training sessions reached 392 home care workers who are members of SEIU and work at Addus Health Care and Bethel New Life. In addition to the training, influenza vaccines were offered to participants.
- Nurses received continuing education training at a half day conference at UIC in partnership with AFSCME titled "Trends in Nursing Practice: Working Together for Quality and Respect." The 143 participants heard from national nursing researchers including Jean Seago on required staffing ratios and Butch DeCastro on Filipino/a immigrant nurses.
- The ASH-CE program organized and presented agricultural health and safety sessions for 1,180 trainees ranging from a conference to short sessions on safety practices including agricultural machine safety and farm accident emergency response.
- The HST-CE provided training for 344 participants including an OSHA recordkeeping course for 59 participants.
- The Illinois ERC offered 27 weekly interdisciplinary seminars with faculty, trainee, other students, and guests participating in person and through on-line presentation software. Participation in our seminar series totaled 725 person-hours.
- During the reporting period, the PPRT made 4 awards totaling \$66,637. Previously funded projects have helped support 24 junior faculty, 3 post-doctoral fellows, 13 PhD student principal-investigators, and 35 student research

assistants for one semester or more. The projects have generated 8 subsequent grant proposals, 6 of which were successfully funded, 27 presentations at regional or national meetings, 17 reports/abstracts/posters, 18 publications, and 18 research theses.

- Three TRT teams were in place during the reporting period. Each team includes interdisciplinary faculty, trainees from each of the disciplines (IH, OS, OHN, OM, OEE), other students in Environmental and Occupational Health Sciences and Epidemiology and Biostatistics, faculty and students from other departments at UIC, and participants from partner organizations outside UIC.
- The Occupational and Environmental Epidemiology Team focused on a CDC-funded project examining data linkage and evaluation of health outcomes and agricultural water contamination. Students on the team were responsible for a Midwestern state and investigated land use data sources; students reviewed and discussed data security protocols; and students identified relevant articles from the peer-review literature and led journal-club discussions. Three PhD trainees presented their dissertation proposal and one MS trainee presented her thesis presentation to the team for review and suggestions prior to the proposal defense meetings and thesis presentation, respectively. (Judith Graber, Emile Jorgenson, Margaret Sietsema). The Team discussed possible additional research projects: 1) contaminants in drinking water in Chicago area, 2) pilot ambient air pollution exposure and health outcomes in bicyclists 3) Analysis of Wisconsin NHANES study, 4) evaluation of bike lanes and bike rider safety, 5) worker exposure to animals.
- The Underserved Worker Populations Team continued work on a variety of projects/activities including: 1) Discussion of Emily Ahonen's publication in AJIM 2009– "Invisible Work, Unseen Hazards: The Health of Women Immigrant Household Service Workers in Spain;" 2) Working in collaboration (Dr. Kathy Rospenda from UIC) with contacts from Johns Hopkins in Maryland (Dr. Gayatri Reddy) to assist/advise Bienestar Latino Occ Health Program Plan. It was a program started by MD/PhD students in School of Public Health at John Hopkins in April 2009. 3) Worked with Emily Ahonen on the final year implementation and analysis of pre- and post-training questionnaires & telephone interviews on the More than Training project; 4) The team began discussing a proposal - Sociological Initiative Coalition – to work with unions and workers to start a "bank" of safety equipment and PEE that workers can use and swap around while also training the workers on proper use; and 5) Discussion of Elizabeth Contreras' thesis presentation (OS trainee) and Jorgia Conner's abstract (OHN trainee).
- The Occupational Surveillance Team met monthly to discuss issues relating to occupational surveillance. The meetings combined faculty lectures and student presentations/discussions. Three trainee thesis resulted from work on the Team. One addressed claim rates for injuries among automobile manufacturing employees. Matt Hornyak was awarded a \$10,000 scholarship, in part, for his work on this thesis. Another analyzed amputations in Illinois and compared state based data with estimates from the Survey of Occupational Injuries and Illnesses. This work is being prepared for publication and will be submitted for review soon. A third examined exposure risks among school nurses. Some of the trainees and other students were also involved in our annual report to NIOSH/CSTE that summarizes occupational injuries in Illinois from 2000-2008.

Awards and Scholarships

- IH trainees Olasunkanmi Alibi and Jordan Hepler, and OS trainee Sosa were awarded Erma Byrd Scholarships from the US Department of Education. OS trainees Katelynn Tonn and Julia Lippert were awarded American Industrial Hygiene Foundation Scholarships. OS trainee Julia Lippert also received an American Society of Safety Engineers Foundation Scholarship and the American Industrial Hygiene Association John A. Leonowich Award for Education Excellence in Non-ionizing Radiation. OS trainee Katelynn Tonn also received the AIHF Chicago Local Section Scholarship. IH trainee Thomas Vroman received the Fred Tremmel Award at the AIHA Chicago Local Section Student Night Poster Competition. OS trainee Matthew Hornyak was awarded the UIC Michael Bruton Workplace Safety and Health Scholarship.
- Andrew Hennenfent who is a trainee in the dual degree (DVM/MPH) program was selected by the Centers for Disease Control to be in their Epidemiology Elective Program.
- Leslie Stayner received the Aguar Fellowship from the Catalan Department of Education to support his research in Barcelona with CREAL. Dr. Stayner was also elected to the Collegium Ramazzini.
- Dr. Peter Orris was recognized as 2011 Distinguished Alumnus, Chicago Medical School, Rosalind Franklin University of Medical Sciences

Graduate Employment

- IH, OS, and HSAT graduates have taken positions with Allied Tube and Conduit, Ascend Performance Materials, State of Washington OSHA, University of California – Fullerton, Bocconi University – Milan, Italy, Region V US EPA, US Steel.
- One OEE trainee has taken a position with the City of Chicago, Department of Public Health in their lead surveillance program.
- Three of the undergraduate ASH trainees accepted positions in the grain industry as management trainees. Two students were hired by ADM and one by Cargill. Two of the trainees indicated that one of the primary reasons they were offered positions was because of their minor in agricultural safety and health.
- The OHN PhD graduate has taken a faculty position at Loyola University School of Nursing.

Leadership

- Dr. Steven Lacey is currently serving on the AIHA National Board of Directors as Treasurer-Elect.
- HSAT trainee Burcu Yavuz is working with UIC IH Faculty to plan a graduate student poster session at ICOH 2012.
- Mr. Salvatore Cali is currently serving on the AIHA Chicago Section Board of Directors.
- Dr. Anders Abelman (recent OS PhD trainee, but not supported by the NIOSH training grant) is currently serving on the AIHA Chicago Section Board of Directors.
- OS trainee Katelynn Tonn is current president of the UIC American Society of Safety Engineers Student Chapter.
- IH trainee Jordan Hepler is current president of the UIC American Industrial Hygiene Association Student Chapter.
- Susan Buchanan served on the steering committee of the national Pediatric Environmental Health Specialty Units and on the Board of Directors of the Association for Occupational and Environmental Clinics.
- Anne Kranz is the co-medical director of the Healthy Lungs Initiative, a program of the Cook County Health and Hospitals System that uses health educators to provide smoking cessation counseling and asthma/COPD education to patients, to improve lung health.
- Sam Dorevitch is a peer reviewer, US EPA Draft Recreational Water Quality Criteria.
- Linda Forst is the Co-Author of a NIOSH Occupational Health Disparities white paper: The Health of the Low-Income Workforce: Integrating Public Health and Occupational Health Approaches
- Dr. Aherin helped lead the development of the Grain Handling Safety Coalition to help address issues associated with the injury and health risk associated with handling and storage of grain on farms and elevators. Dr. Aherin also serves on the advisory committee for the Great Plains NIOSH funded Agricultural Health Center at the University of Iowa.

Student Presentations (trainees are underlined; [†]NIOSH funded trainee)

- Lippert J[†], Lopez R[†]. *Medical laser safety*. Presented at the Chicagoland Safety Conference, Naperville, IL, September 14, 2010.
- Gribovich A[†]. Arsenic exposure assessment in a museum laboratory environment. Presented at the American Industrial Hygiene Conference & Exposition, Portland, OR, May 2011.
- Hornyak M[†], Friedman L, Forst L. Auto manufacturing and workers compensation. Presented at the American Industrial Hygiene Conference & Exposition, Portland, OR, May 2011.
- Sietsema M[†], Conroy L. Methods and results of hospital recruitment for a study of respiratory protection programs. Presented at the American Industrial Hygiene Conference & Exposition, Portland, OR, May 2011.
- Vroman T[†]. Evaluation of a new rapid method for determining recreational water quality. Presented at the American Industrial Hygiene Conference & Exposition, Portland, OR, May 2011.
- Murphy C[†], Conroy L, Ahonen E, Jabobs D. Comparing indoor air quality in newer "green" low-income housing with traditional housing. Presented at the American Industrial Hygiene Conference & Exposition, Portland, OR, May 2011.
- Miller C[†] & Aherin R. Farmers with disabilities: Using national data sets to estimate prevalence. Presented at the International Society for Agricultural Safety and Health annual conference, June, 2011.
- Hennenfent A[†] & Aherin R. Occupational risk factors for the modern large animal veterinarian. Presented at the International Society for Agricultural Safety and Health annual conference, June, 2011.

Publications

For a complete list of publications by faculty and students at the Illinois ERC, please visit our website: www.uic.edu/sph/erc